**LITERATURE ASSIGNMENT -** Due on Monday. Jan 21st at midnight

The purpose of this assignment is to allow you to become familiar with different methods of obtaining scientific information. Primarily, this will be through peer-reviewed scientific journals. At UT we have a couple of ways to get at these resources of which there are three main kinds:

Peer-reviewed: means that the paper has been critically reviewed (and accepted for publication) by a group of similar scientists. Usually 2-5 reviewers. These are the most common papers that you will read.

Review paper: Is more like a book report in that it is a compilation of the relevant studies that are in the literature. These are used to summarize and update readers on the status of a particular research subject. They usually do not contain any original data but rather assimilates findings that are already in the literature. These are less common but quite useful when studying a new topic. They are still subject to peer-review.

Popular Article: These are more often editorials or opinion pieces and may be scientific in nature but are not necessarily peer-reviewed and may represent a bias by the author.

**INSTRUCTIONS**

* The first fours tasks below require you to find a journal article: Find, Download in PDF form, and Skim the abstract of each article. Take a look at the figures, but don’t spend too much time trying to figure out all of the details of the work.
* Then, create a document to submit.
* Type the citation for the journal article using the ACS format shown below
* Copy and paste the last paragraph of the Discussion or Conclusions section of the article
* Submit electronically via DropItToMe

Grading: Each task is worth 3 points for a total of 21 for the 7 tasks (citation is worth 1 point, format of citation is worth 1 point, paragraph is worth 1 point,)

Example citation following the **American Chem. Society (ACS)** standard:

Mayer, M. P.; Prodromou, C.; Frydman, J., The Hsp90 mosaic: a picture emerges. *Nat Struct Mol Biol* **2009,** 16, (1), 2-6.

The format is:

**First Author, Second Author**, Title of Article. ***Journal Title*** **Year**, Vol. #, (Issue #), PageRange.

**TASKS**

NOTE: If you are off campus, for full access to the complete articles, you must go through the UTexas Library website. This will allow you to sign in using your UTEID when access to a subscription journal is necessary.

To get to UTexas Library homepage:

* Start at the UT main page
* Then go to 🡪 Libraries&Museums🡪 University Libraries

To get to UTexas Chemistry (Mallet) Library

* Start at the UT main page
* Then go to 🡪 Libraries&Museums🡪 more…
* Click Chemistry (Mallet) Library

1. **UT Libraries Page**

* Find this article:

Perola, E.; Xu, K.; Kollmeyer, T. M.; Kaufmann, S. H.; Prendergast, F. G.; Pang, Y. P., Successful virtual screening of a chemical database for farnesyltransferase inhibitor leads. *J Med Chem* **2000,** 43, (3), 401-8.

* UTexas Library homepage🡪 Research Tools 🡪Find a Journal
* Enter journal name (**Journal of Medicinal Chemistry**) in the blank and click on it when it comes up in the list
* Pop up shows that it is available from American Chemical Society (ACS) Journals. Click on this link to take you to the journal’s website.
* Go to ‘Browse the Journal’ and then ‘List of Issues’ then find the year and volume from the list. Find the specific article by looking for the page range.
* Download the PDF
  + provide the citation for the journal article using the ACS format
  + copy and paste the last paragraph of the Discussion or Conclusions section of the article - below the citation

1. **Mallet Chemistry Library at UT**

* Read the Tutorial on Finding Articles 101 <http://www.lib.utexas.edu/chem/tutorials/articles/>
* Next, find this specific article:

*Bioorg Med Chem Lett* **2003,** 13, (24), 4355-9

* Mallet Chemistry Library 🡪 Research Tools 🡪 Find a Journal
* Search Title “bioorganic medicinal” 🡪 Bioorganic & medicinal chemistry letters 🡪 Go
* Click journal title below – the one that has the ‘online’ link
* Click on the ‘**Find it at UT’** link on the right
* Click on Pop up that shows it is available from ScienceDirect (Elsevier) Journals
* On the left, search by Year, Volume and Issue to find the article
* Download by clicking on ‘PDF Full Text’ link
  + provide the citation for the journal article using the ACS format
  + below your citation, copy and paste the last paragraph of the Discussion or Conclusions section of the article - below the citation

1. **Web of Science (ISI)**

* Find this article that our PI(principal investigator) authored:

Identification of new classes of ricin toxin inhibitors by virtual screening

* Mallet Chemistry Library 🡪 Web of Science
* 🡪 Type the title into the search box.
* 🡪 Also type ‘**Robertus**’ into the second search box and select ‘**Author**’ from the pull down menu on the right of the box. Hit ‘Search’
* Click the ‘Find it at UT’ button
* Click ‘Go’ under EBSCO
* Click the PDF Full Text button to download the article
  + provide the citation for the journal article using the ACS format
  + copy and paste the last paragraph of the Discussion or Conclusions section of the article - below the citation

1. **PubMed**

* Find a **review** article using this search term:

**‘Virtual Drug Screening’**

* In the UT Main Page: search for ‘Pubmed’
* Type in the search term above
* Click on the right hand side under ‘**Limits’** and select ‘**Review’** in the Type of Article field.
* Also filter by ‘**Links to free full text’** that is further down
  + Warning: if you click on ‘Review’or ‘Free Full Text’ from the main page – it will search for either one or the other, but not both terms
* Choose the first article and get the PDF
* Click on the box on the right hand side that opens the journal
  + provide the citation for the journal article using the ACS format
  + copy and paste the last paragraph of the Discussion or Conclusions section of the article - below the citation
* If you are unable to get the Citation and Abstract since the articles are too new, then go to the next oldest one until you can.

1. **SciFinder Scholar Program**

* Find these molecules:

**‘17-AAG’ and ‘Pteroic Acid’ and ‘Tylenol’**

* Register for SciFinder from the **Mallet Chemistry Library** page (search UTexas site for ‘**mallet’**)
  + Click on the ‘Info, News, Register’ link under SciFinder
  + Register following on-screen directions
  + NOTE: you must have an ‘@mail.utexas.edu’ email in order to create a SciFinder login. So, create this first if you don’t have one: *http://www.utexas.edu/its/umbs/index.php*
* Go back to Chemistry Library and click ‘Connect,’ Sign In or ‘**Log In’**
* Click ‘**Explore Substances’** then ‘**Substance Identifier’**
* Search for each substance
* Click title to get more information
* Copy the **molecular formula** and two **chemical name** (under formula) into your document
  + The names should be the 1.) common name 2.) IUPAC name

1. **PubMed protein search**

* Go back to the PubMed main page
* On the top there is a pull down menu next to ‘Search:’ 🡪 Select protein
* Then type in ‘**hsp90 alpha & homo sapiens [orgn]**’

**NOTE: This will search for the heat shock protein 90 and limit the search to the human organism version of it**

* **Click on the record that has an ‘NP\_’ number associated with it. This is the Accession number. Copy this down.**
* **At the very bottom of the page is a bunch of random letters that are in rows. Copy and paste the Sequence where it says ORIGIN. – This is the ordered list of amino acids that make up this protein. (at the top of the page it will tell you how many amino acids ‘aa’ there are – make note of this in your write up)**

1. **PubMed gene search**

* Find the same hsp90 listing by going to ‘Gene’ in the original PubMed site and enter the same search text as above.
* Make sure the GeneID is the same as for the protein you just opened
* Scroll down to the heading ‘mRNA and Protein’
* In the BLUE text, click on the NM\_....... identifier that shows the mRNA nucleotide sequence for this gene. Make sure you are doing it for isoform 2 and not the other one. You can tell by looking at the NP\_ number that is next to the NM\_ number and making sure it matches the protein you found in the previous task.
* When you click on it, select ‘FASTA’. Then copy and paste the text in your report. FASTA is just a style of formatting with which it is easy to work.

**SUBMITTING**

Include your name and UTEID and document title at the top of the page – you can put this in the header region. Include the page number at the ‘footer’ – i.e. bottom of page. See the header and footer of this document for examples.

Submit as a PDF document. To make a PDF from a WORD document, go to Save As and select ‘PDF’ or use any online convertor, such as: [**http://www.freepdfconvert.com/**](http://www.freepdfconvert.com/)**.**

Title your filename appropriately – using the standard format that we have been using.

Format for filename of submitted assignments:

**UTEID\_Name \_Date\_ Assignment.pdf**

e.g. **JDS297\_JonasSalk\_010112\_LitSearchAssign.pdf**

Convert your document to a PDF

Upload to the **DROPitTOme** site. Passwerd: virtual214

<http://www.dropitto.me/vdsclass>